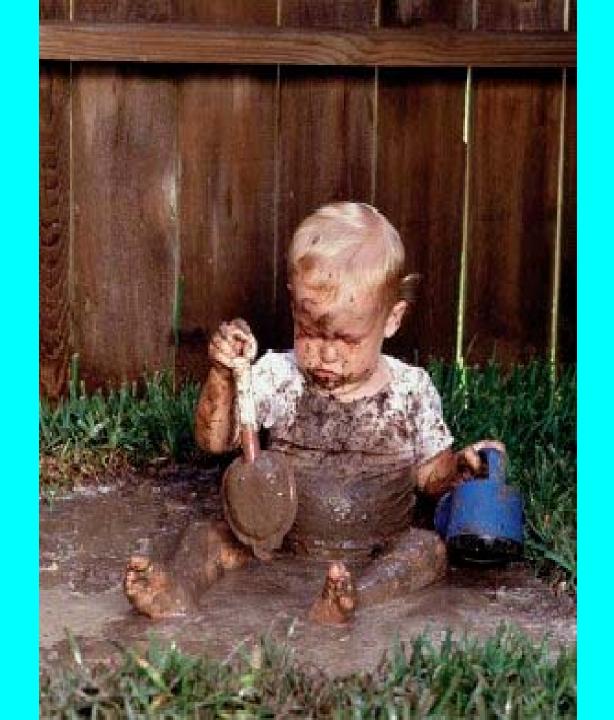
#### Ingestion-Dermal Absorption Standards

Linda Cullen

Soil Standards Workshop August 10, 2004



#### Compounds Evaluated for Dermal Absorption Pathway

Arsenic

Benzo(a)pyrene

Cadmium

Chlordane

**DDT** 

Lindane

**PAHs** 

Pentachlorophenol

Semi-volatile organic compounds

#### Combined Ingestion-Dermal Absorption Pathway

- Acknowledges that concurrent exposure occurs via dermal and ingestion pathways
- Consistent with EPA
- Combined pathways employ same target risk as other individual pathways
- Of 145 chemicals, about half have a dermal component and will have lower standards than our current SCC levels

# The Nonresidential Scenario Is Changed

 Using EPA's outdoor worker scenario for the nonresidential standards, rather than the indoor worker used in the current Soil Cleanup Criteria

Outdoor worker scenario is less conservative

## Toxicity Information Is Updated

 New toxicity information has been incorporated according to an established hierarchy

• As a result, chemicals with new toxicity data will have different standards than our current Soil Cleanup Criteria levels

#### Alternative Remediation Standards Are Limited

 Advancements in methodology, such as new toxicity or exposure information, improved or advanced models and methods

Appropriate site-specific default parameters

• Different land use determinations such as recreational or trespasser scenarios

### Compliance With Ingestion-Dermal Standards

 All sampled contaminants that exceed their relevant ingestion-dermal absorption standard must be remediated

• Site wide averaging is **not** routinely accepted, except on a case-by-case basis when sampling is deemed to be representative of the contaminant concentrations across the site

## Compliance With Ingestion-Dermal Standards

 Compliance averaging over an area of concern is allowed

 Averaging of sporadic low levels of contaminants with no discernable source area and minimal exceedances of a standard during post excavation sampling are allowed